

SQL Part 1 (Installation)

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Introduction



Agenda

SQL Overview

Install MySQL in Breakout rooms

Install DataGrip

DataGrip Overview

Part 2 Agenda

If you want to...

See data

Relationship between data

Find any cell

Add data to cells

To add order to information

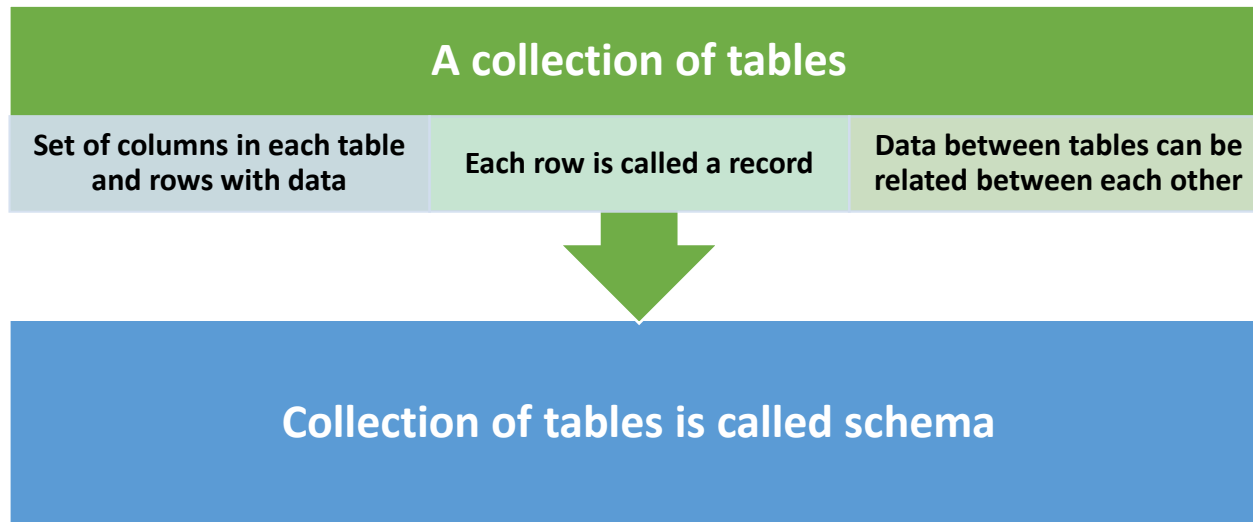
SQL Overview

Structured Query Language

Crud: create, read, update, delete

- Create databases and tables
- Look at specific data
- Make changes to data and remove data
- And more (level 2)

Relational Databases



School_Courses

ClassID	Title	ClassNum
1005	Intro to Art History	500
1006	Intro to SQL	501
1009	Intro to Databases	300

Tables

Courses_Students

ID	ClassID	Semester
71225	1005	Fall21
86634	1006	Spr22
32238	1009	Spr22

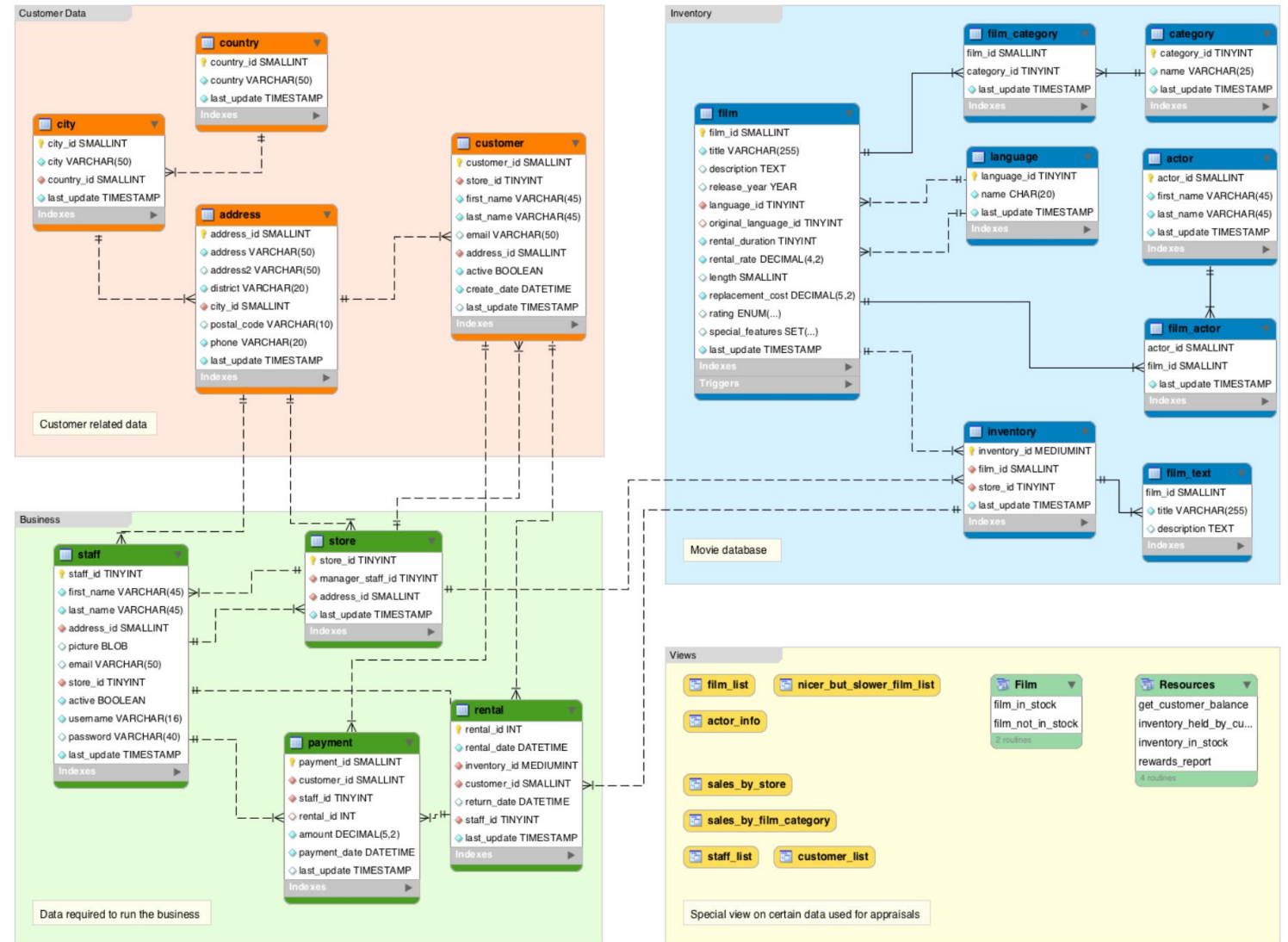
School_Courses

ClassID	Title	ClassNum
1005	Intro to Art History	500
1006	Intro to SQL	501
1009	Intro to Databases	300

Students_Attendees

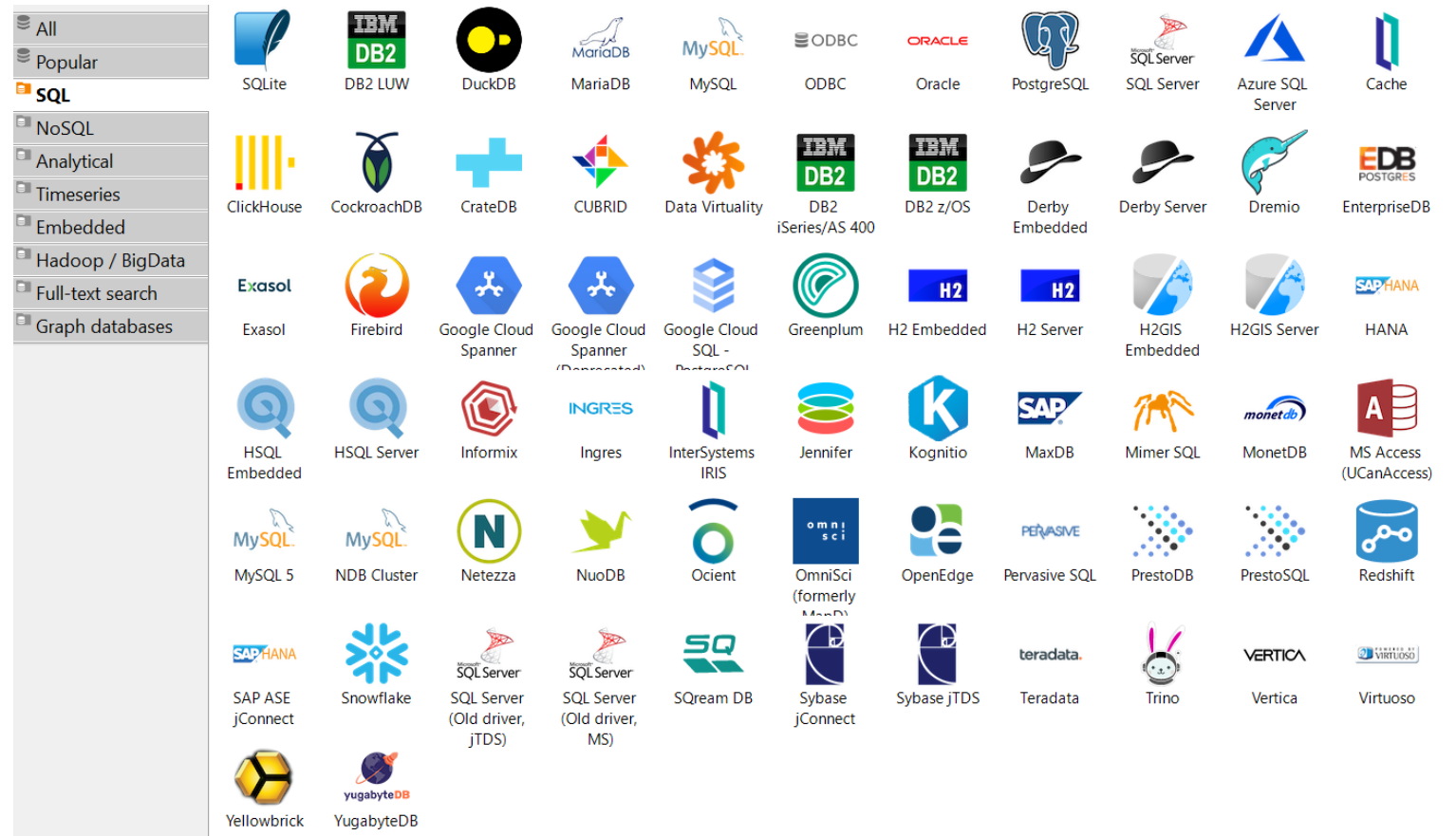
ID	Name	Grade	DOB
71225	Lili	Freshman	03/12/1995
32238	Brenda	Senior	05/28/1989
86634	James	Freshman	09/20/1999

Schema Example - Entity Relationship Diagram (ERD)



A database schema diagram of the Sakila Sample Database.

Syntax



MySQL Overview

Open-source relational database

Cross platform, can run on Windows, Mac OS, Linux, etc.

Client/Server System

Applications and Machines



Client: Computer workstations or mobile devices



Server: stores files and database, provides services to the clients

Breakout Rooms

15-20 mins

MacOS

Windows

Steps 1: Download MySQL

Download MySQL: <https://dev.mysql.com/downloads/mysql/> (free)

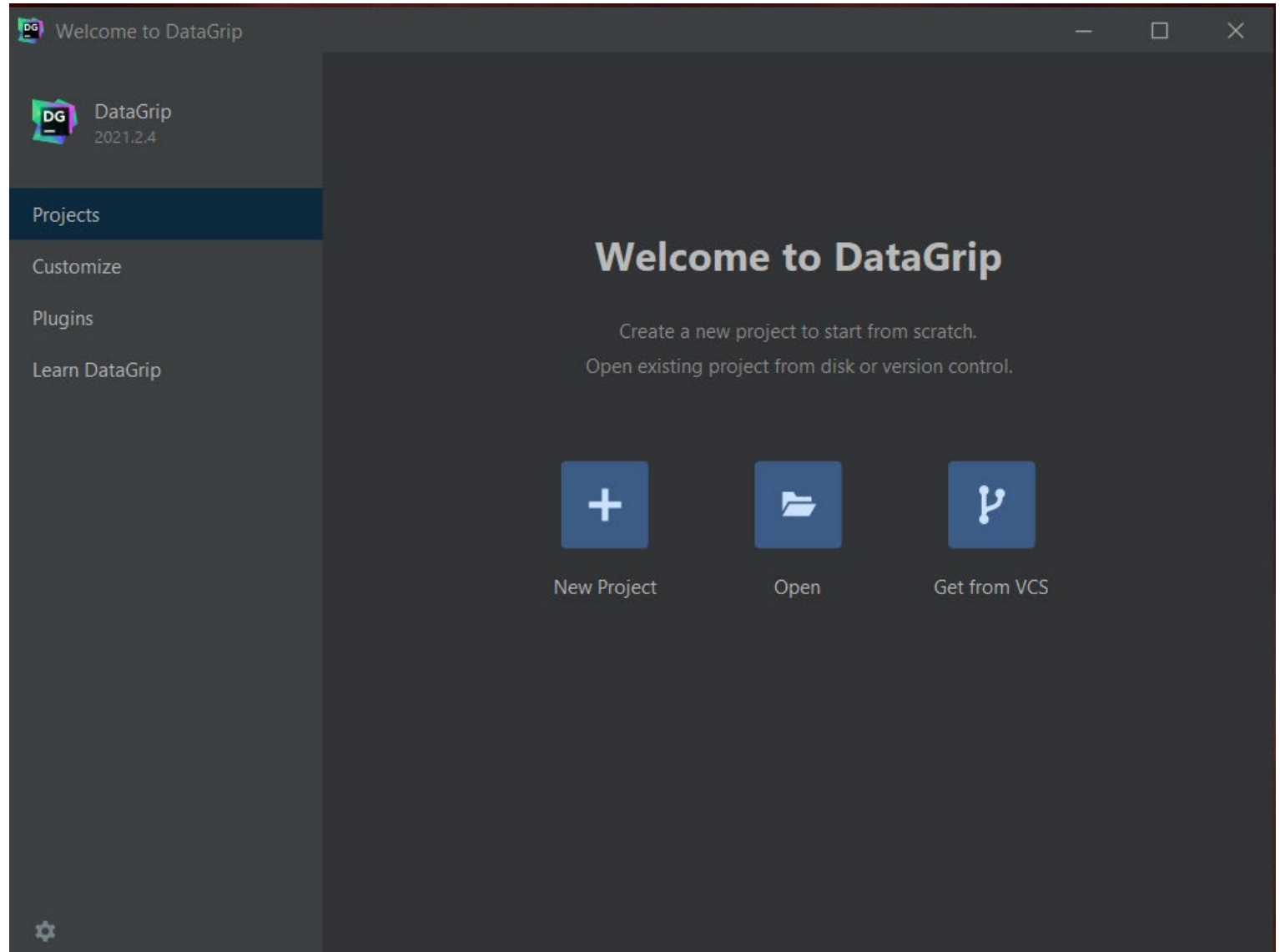
Steps 2: Download DataGrip

Download DataGrip: <https://www.jetbrains.com/datagrip/> (you can use 30-day trial)

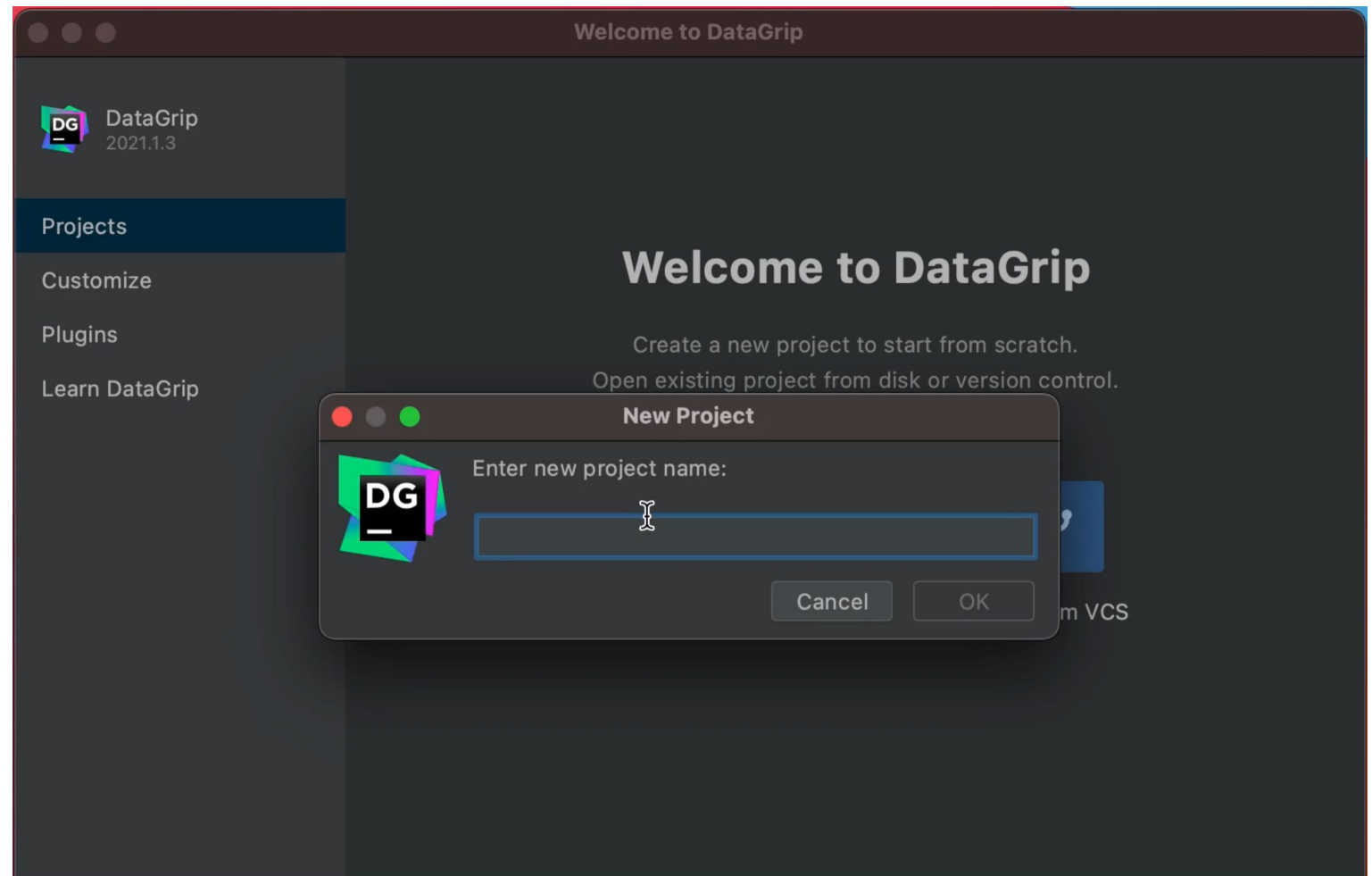
The background of the slide features a dark blue gradient with a large, lighter blue circular shape on the right side.

DataGrip

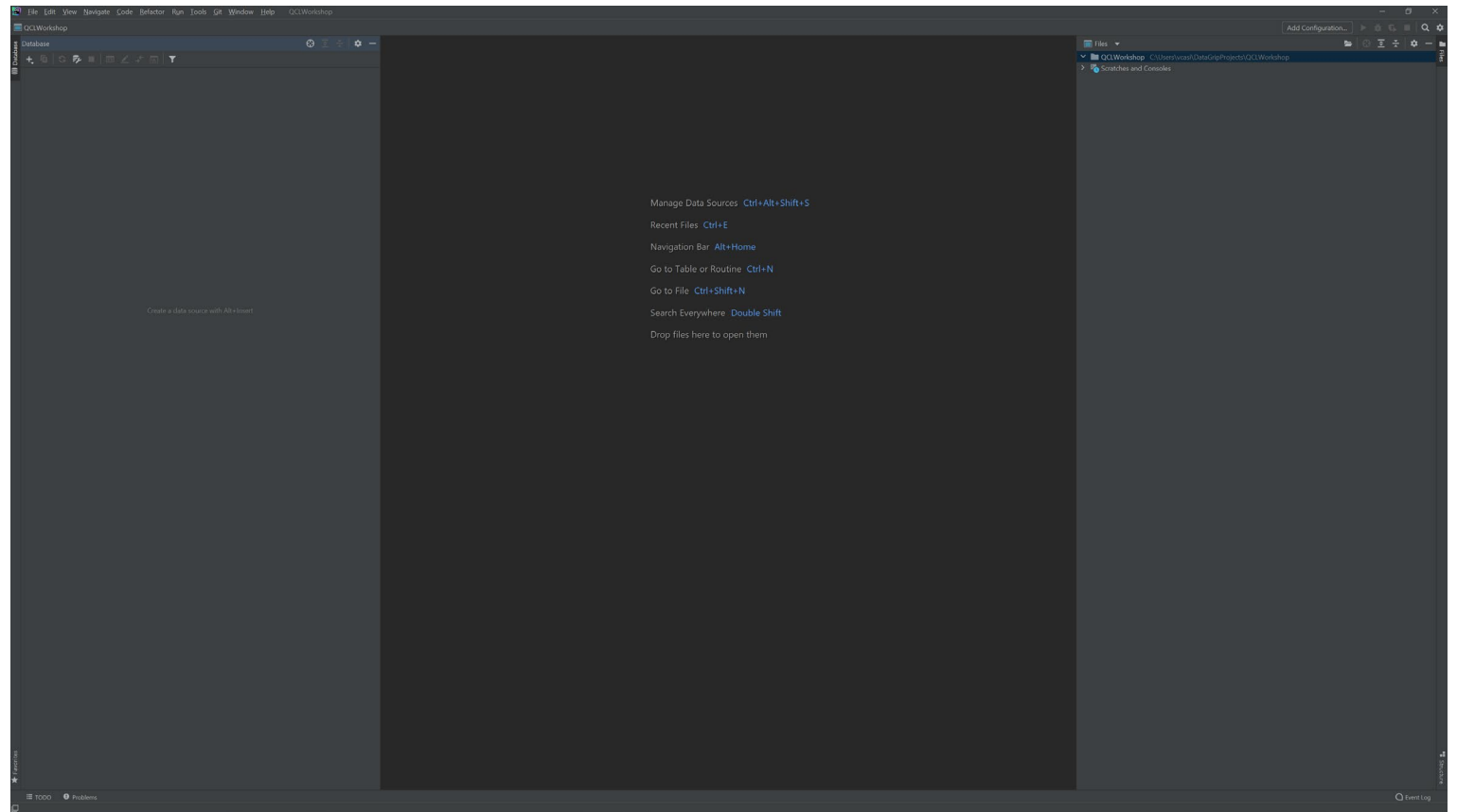
Click New
Project



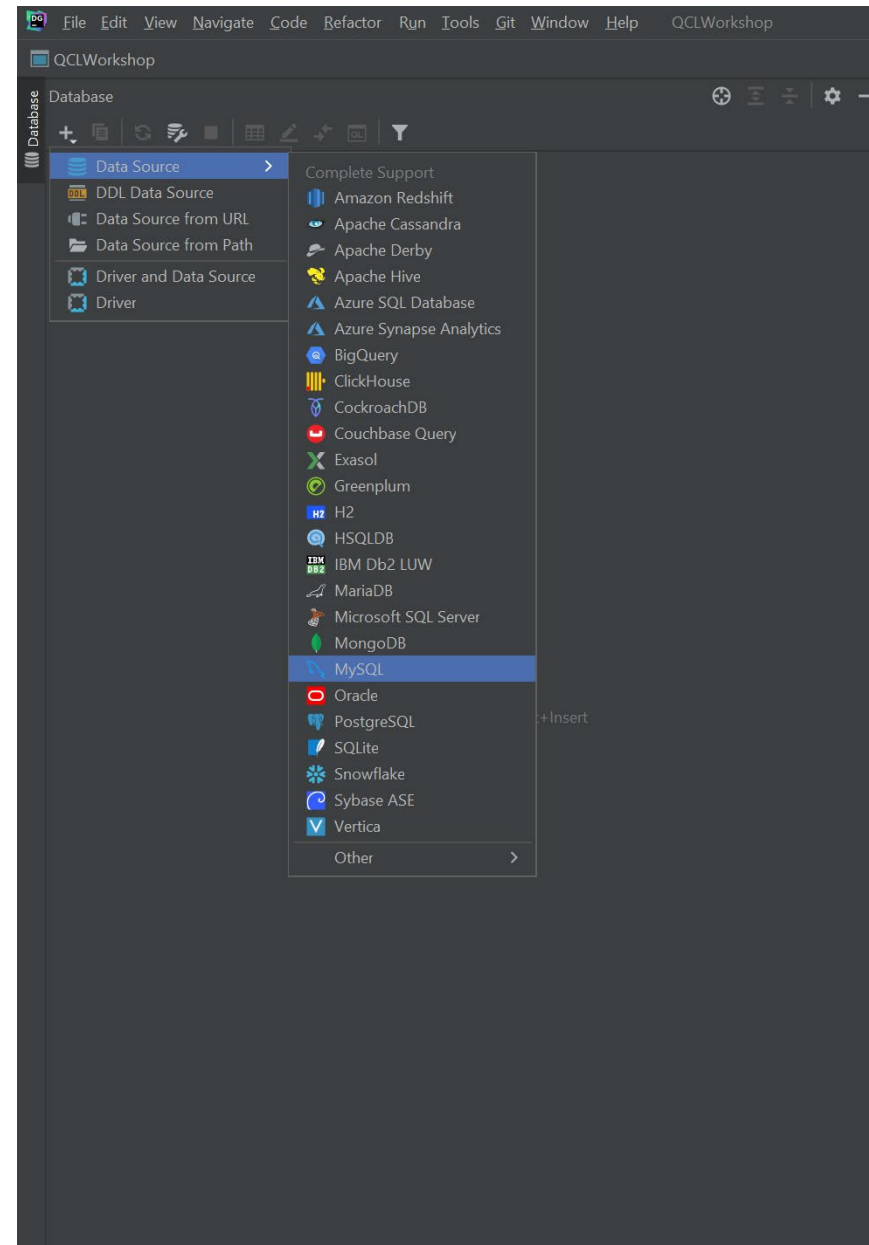
Make new
project called
“QCLWorkshop”



What is look
like when
you have it
setup



Click on the
Plus Sign
Click on Data
Source
Click on MySQL



Fill in User: root
Fill in Password:
1234pass
Test Connection

"1234pass"

Data Sources and Drivers

Data Sources Drivers

Project Data Sources

@localhost

Problems

General Options SSH/SSL Schemas Advanced

Connection type: default Driver: MySQL

Host: localhost Port: 3306

Authentication: User & Password

User: root

Password:

Save: Forever

Database:

URL: jdbc:mysql://localhost:3306
Overrides settings above

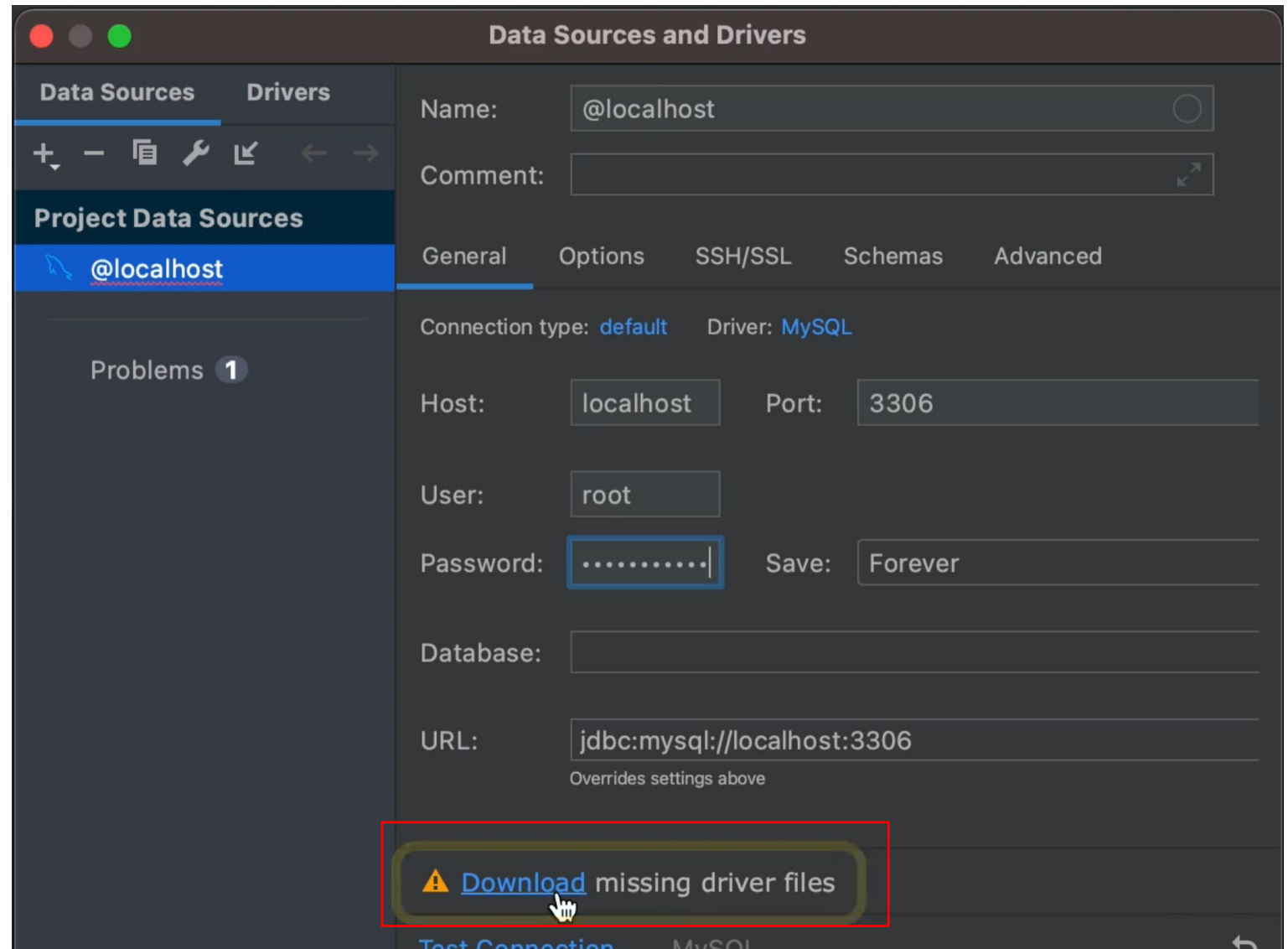
Succeeded Copy

DBMS: MySQL (ver. 8.0.27)
Case sensitivity: plain=lower, delimited=lower
Driver: MySQL Connector/J (ver. mysql-connector-java-8.0.25 (Revision: 08be9e9b4cba6aa115f9b27b215887af40b159e0), JDBC4.2)
Ping: 11 ms
SSL: yes

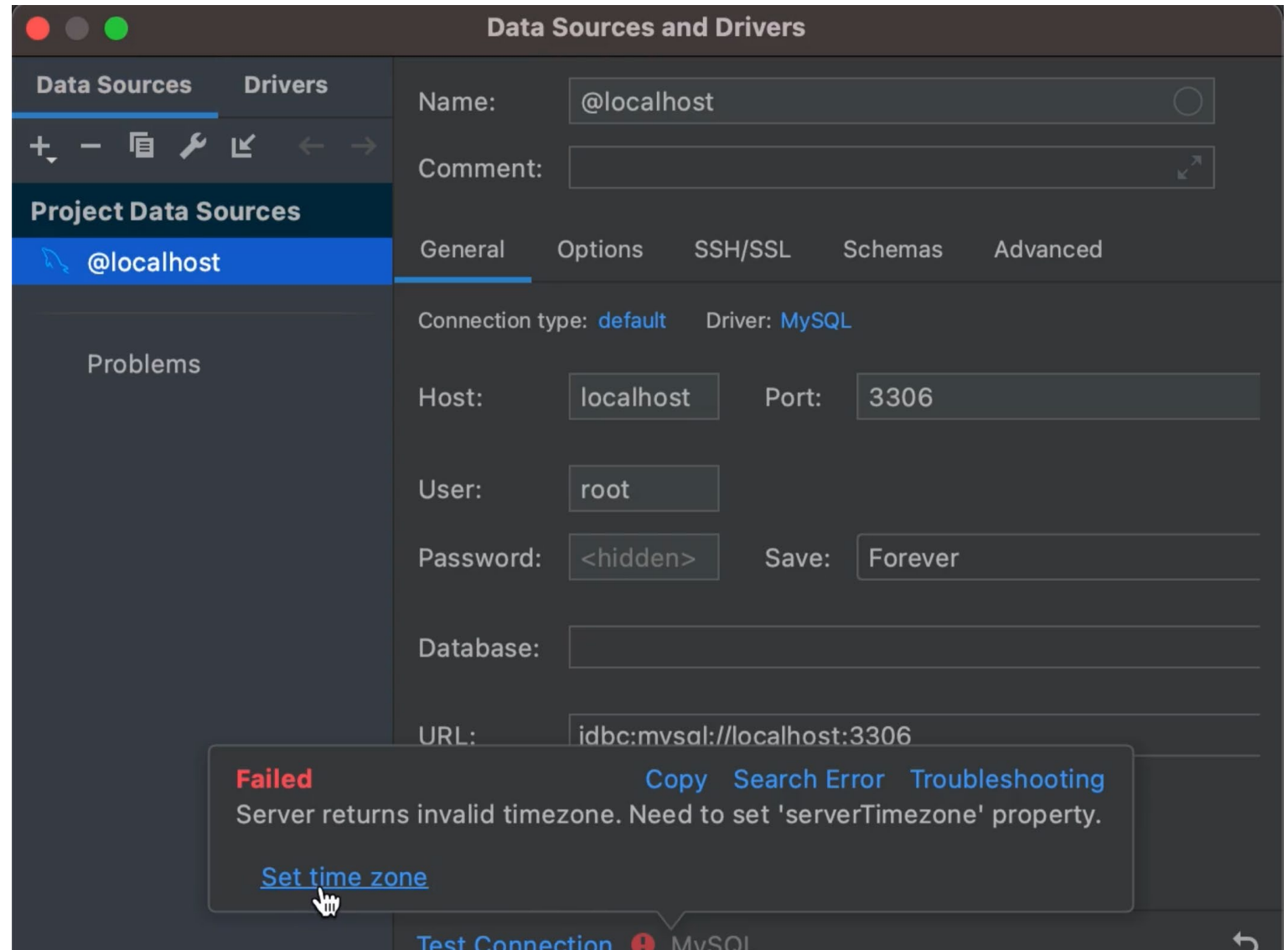
Test Connection ✓ MySQL 8.0.27

OK Cancel Apply

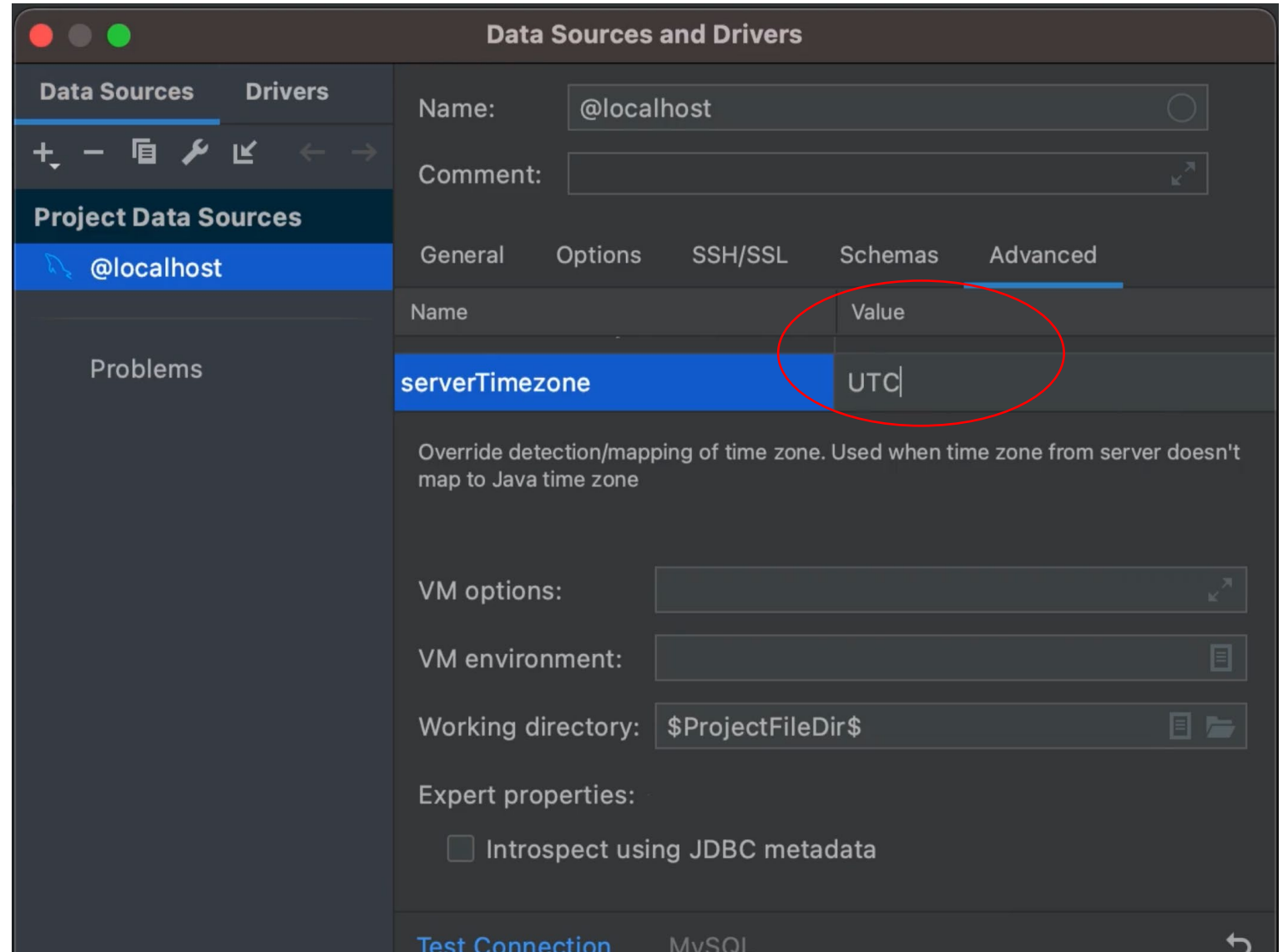
Download
missing
driver files



If you get
time zone
error



Put UTC is
the value
box, push
tab button
on keyboard



Test Connection

Data Sources and Drivers

Data Sources Drivers

+ - [Icons]

Project Data Sources

@localhost

Problems

Name: @localhost

Comment:

General Options SSH/SSL Schemas **Advanced**

Name	Value
continueBatchOnError	true

Should the driver continue processing batch commands if one statement fails. The JDBC spec allows either way (defaults to 'true').

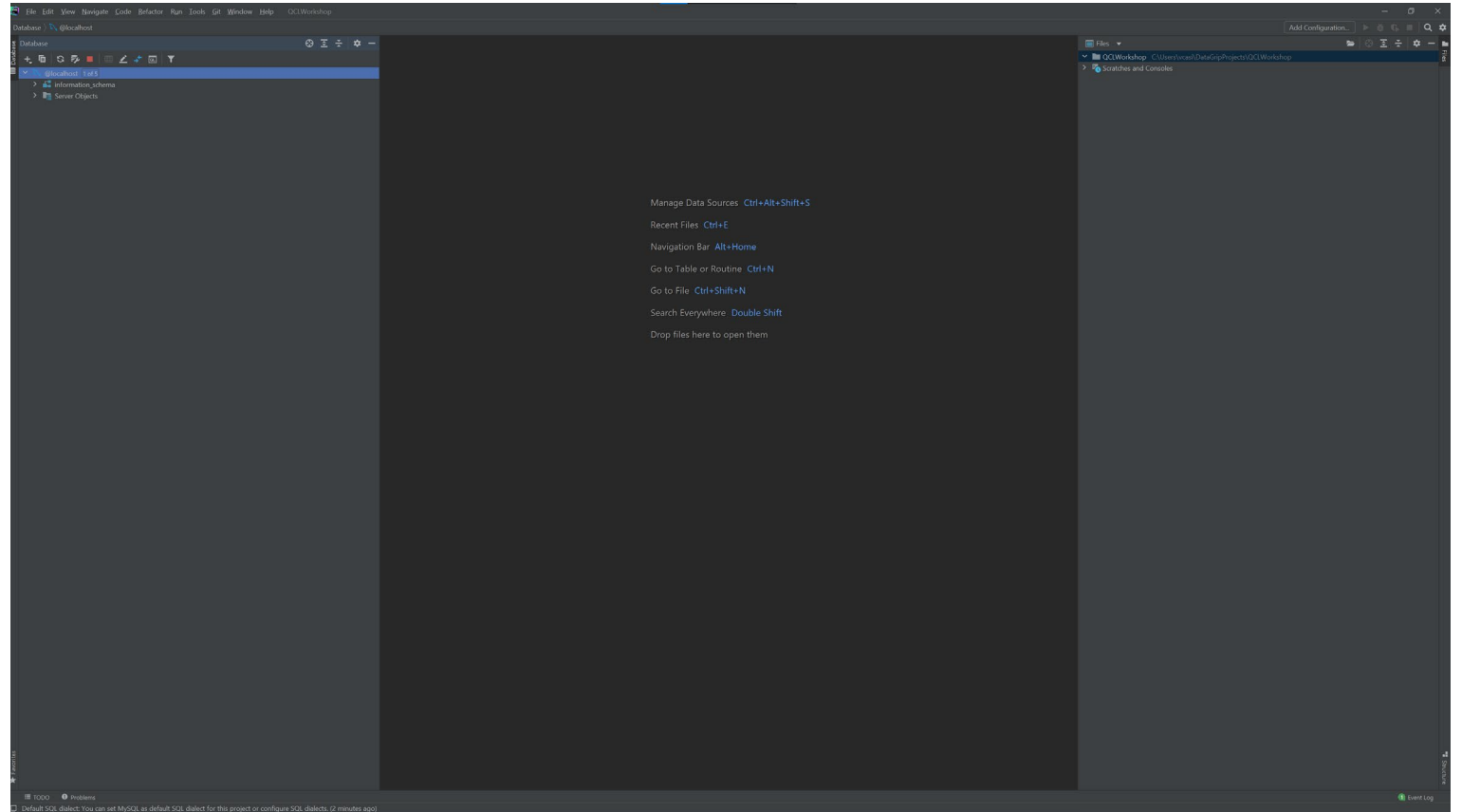
VM options:

Succeeded Copy

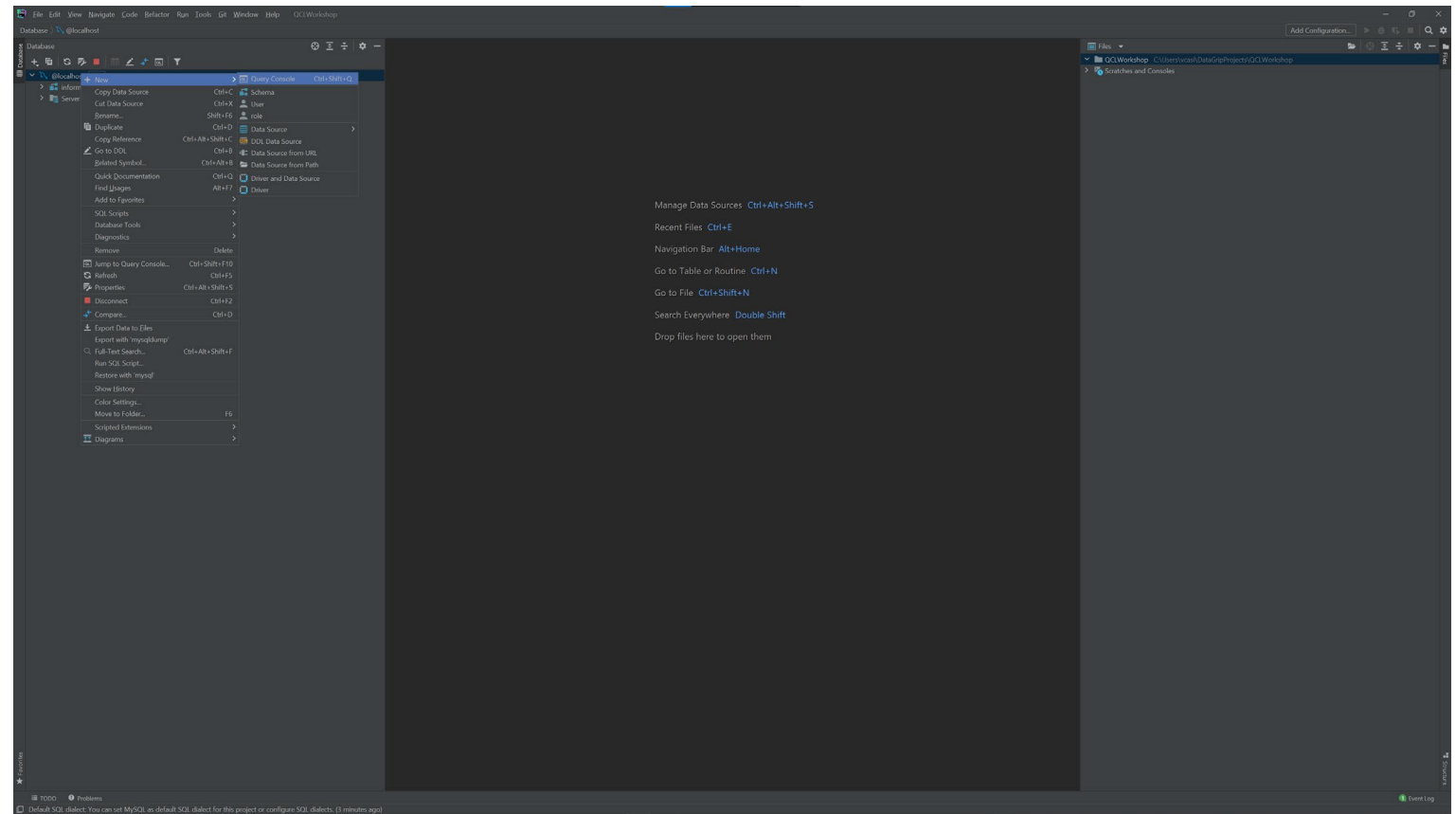
DBMS: MySQL (ver. 8.0.25)
Case sensitivity: plain=mixed, delimited=mixed
Driver: MySQL Connector/J (ver. mysql-connector-java-8.0.21 (Revision: 33f65445a1bcc544eb0120491926484da168f199), JDBC4.2)
Ping: 19 ms
SSL: yes

Test Connection ✓ MySQL 8.0.25

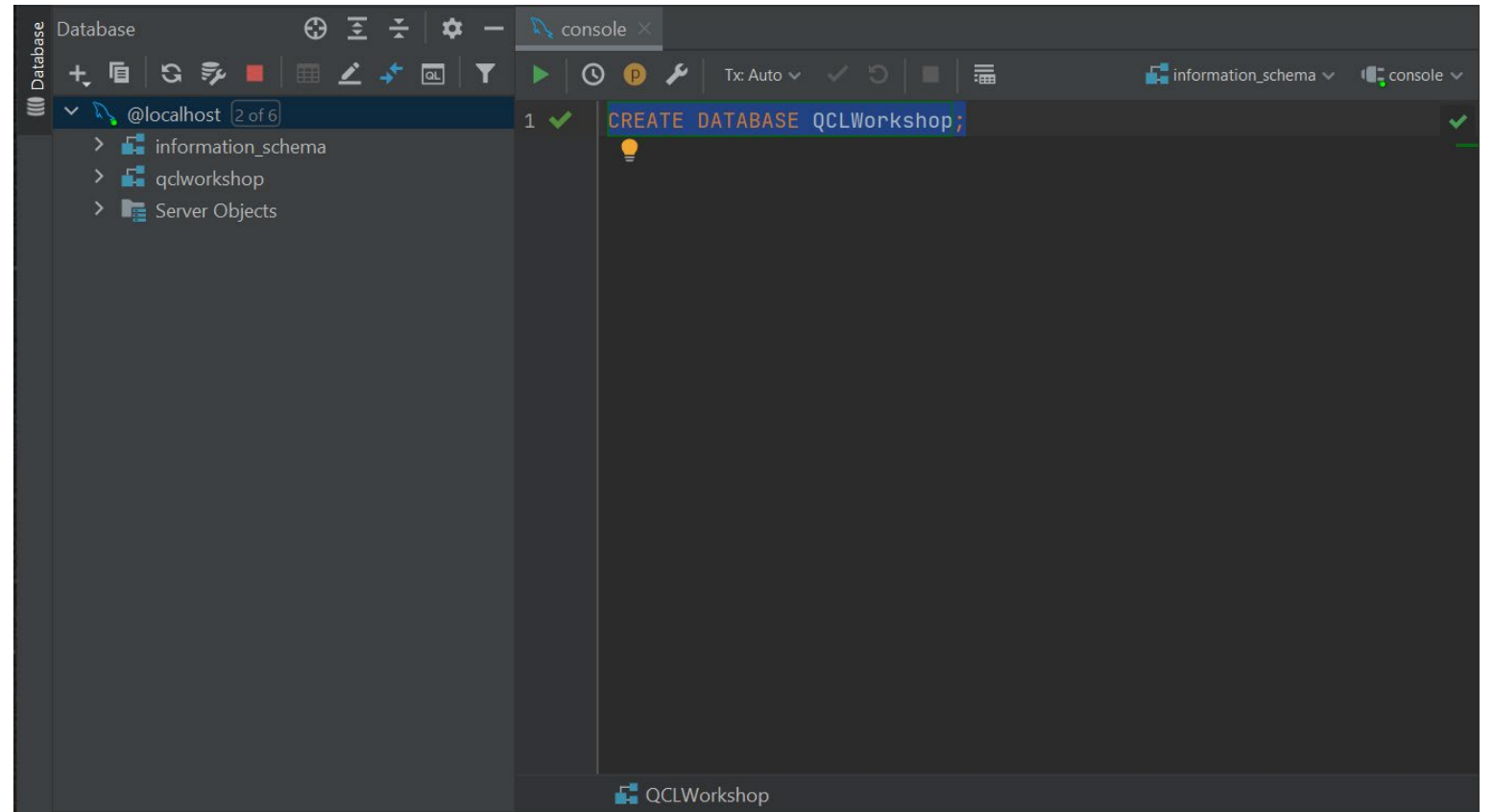
See the
Sever on the
left-hand
side



Right click
Click new
Click Query
Console



Create a Database



Connect Database

Databases and Tables

Console Information

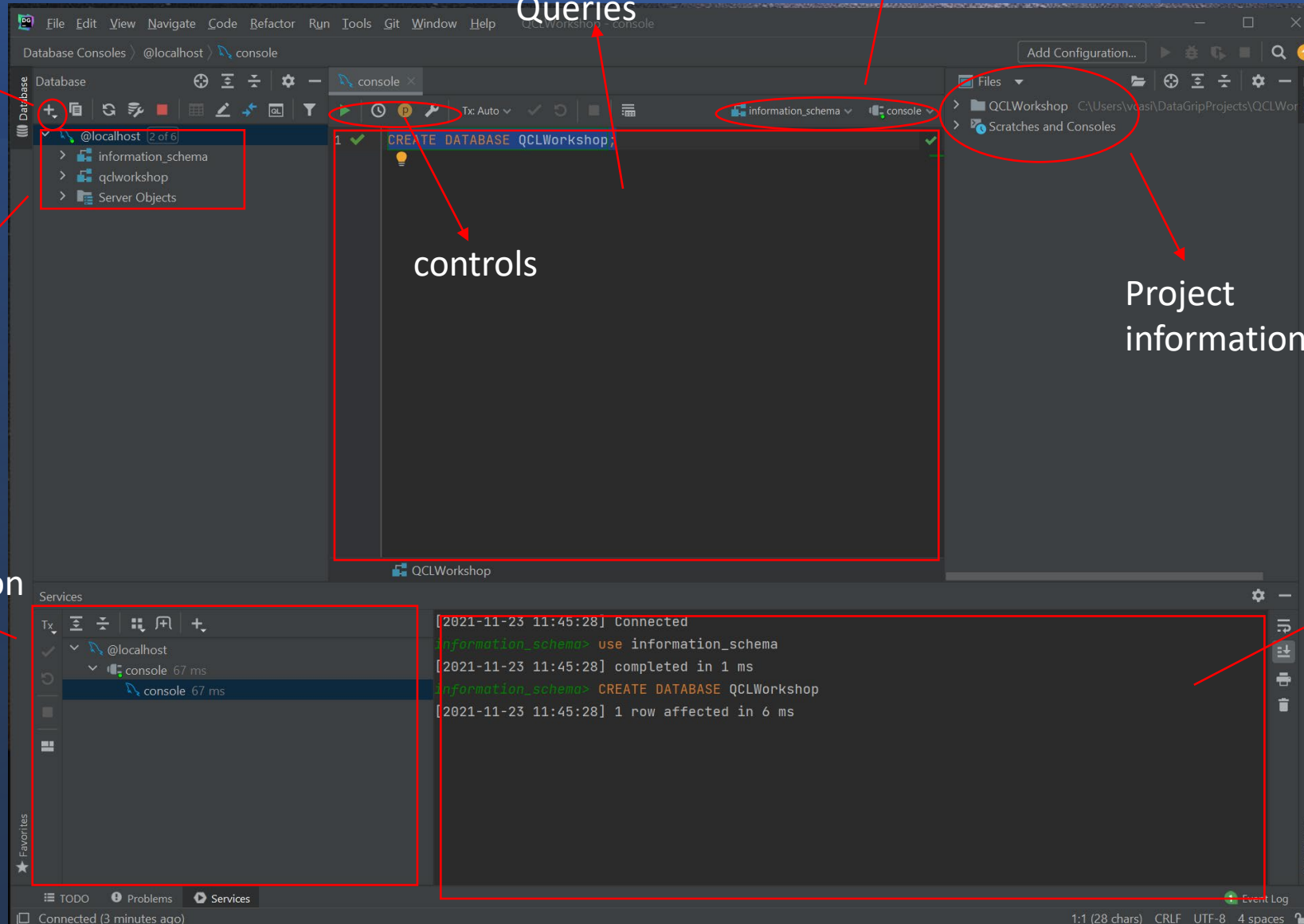
Text Editor
Where you
will write
Queries

Choose your
data base

controls

Project
information

View, Results,
Execution



SQL Part 2

- Make sure to bring:
 - Computer
 - MySQL downloaded and setup
 - DataGrip downloaded and setup
- Agenda
 - SQL Overview
 - Review
 - Basic SQL Statements
 - SQL Database Query Difference
 - DataGrip
 - Basics SQL Commands Hands-on
 - Operation Order
 - Resources
 - Contact Info